

IN THE ABSTRACT

Please amend the abstract as follows.

On page 1 of the application, delete the abstract beginning with "Data communication in an electrical system ..." and ending with "... base voltage on the bus can be AC or DC.", and immediately after page 36, on a separate physical sheet marked page 37, insert the following abstract:

--ABSTRACT

Data communication in an electrical system according to the present invention uses the time difference between two successive current or voltage pulses to represent different data values. The time differences ($\Delta t_9 - \Delta t_{16}$) can assume more than two different predetermined values, and thereby each pulse can represent more than one data bit. A central unit of the inventive system transfers data to a number of nodes by modulating voltage pulses onto a base voltage supplying power to the nodes. The time difference ($\Delta t_9 - \Delta t_{12}$) between successive voltage pulses represents a data value. The nodes transfer data back to the central unit using current pulses, whereby the time difference ($\Delta t_{13} - \Delta t_{16}$) between the latest voltage pulse and the current pulse represents the data sent to the central unit. Data from two or more nodes are possible to transfer simultaneously without disturbing each other. The base voltage on the bus can be AC or DC.--.